

ORIGINAL

MEMORANDUM



0000167200

RECEIVED

TO: Docket Control

FROM: Thomas M. Broderick  
Director  
Utilities Division

2015 DEC -7 P 4: 28

AZ CORP COMMISSION  
DOCKET CONTROL

DATE: December 7, 2015

RE: STAFF REPORT FOR BN LEASING CORPORATION DBA AUBREY WATER COMPANY'S FILING FOR A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS WATER RATES AND CHARGES (DOCKET NO. W-03476A-15-0286)

Attached is the Staff Report for BN Leasing Corporation dba Aubrey Water Company's ("Aubrey" or "Company") application for a permanent rate increase. Staff and Aubrey have entered into a Settlement Agreement (the "Agreement") to resolve all issues in this docket.

Any party who wishes may file comments to the Staff Report with the Commission's Docket Control by 4:00 p.m. on or before December 17, 2015.

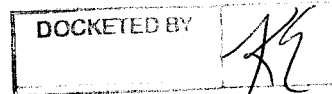
TMB:TDP:red/RWG

Originator: Tanya Pitre

Arizona Corporation Commission

DOCKETED

DEC 07 2015



Service List for: BN Leasing Corporation dba Aubrey Water Company  
Docket No. W-03476A-15-0286

Mr. Ray L. Jones  
ARICOR Water Solutions, LC  
18835 North Thompson Peak Parkway, Suite 215  
Scottsdale, Arizona 85255

Mr. Patrick Black  
Fennemore Craig, P.C.  
2394 East Camelback Road, Suite 600  
Phoenix Arizona 85016

Mr. Thomas M. Broderick  
Director, Utilities Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Ms. Janice M. Alward  
Chief, Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Mr. Dwight Nodes  
Chief Administrative Law Judge, Hearing Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

**STAFF REPORT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION**

**BN LEASING CORPORATION DBA  
AUBREY WATER COMPANY**

**DOCKET NO. W-03476A-15-0286**

**APPLICATION FOR A DETERMINATION  
OF THE FAIR VALUE OF ITS UTILITY PLANT AND  
PROPERTY AND FOR INCREASES IN ITS  
WATER RATES AND CHARGES**

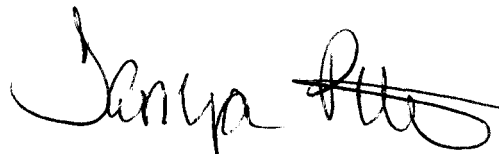
**DECEMBER 7, 2015**

## STAFF ACKNOWLEDGMENT

The Staff Report for BN Leasing Corporation dba Aubrey Water Company ("Aubrey" or "Company") Docket No. W-03476A-15-0286 was the responsibility of the Staff members listed below. Tanya Pitre, under the direction of James Armstrong, was responsible for the review and analysis of the Company's application, recommended revenue requirement, rate base and rate design. Katrin Stukov was responsible for the engineering and technical analysis. Trish Meeter was responsible for reviewing customer complaints filed with the Commission.



James Armstrong  
Chief of Financial and Regulatory Analysis



Tanya Pitre  
Public Utilities Analyst I



Katrin Stukov  
Utilities Engineer – Water/Wastewater



Trish Meeter  
Consumer Analyst II

**EXECUTIVE SUMMARY**  
**BN LEASING CORPORATION DBA AUBREY WATER COMPANY**  
**DOCKET NO. W-03476A-15-0286**

On August 6, 2015, BN Leasing Corporation dba Aubrey Water Company ("Aubrey" or "Company") filed an application with the Arizona Corporation Commission ("Commission") for a permanent rate increase.

Aubrey is a class D for-profit Arizona public service corporation that provides potable water service to approximately 280 customers in the community of Seligman, Arizona. In addition to customers connected to the Aubrey distribution system, the Company also supplies water to homes outside of Seligman through bulk water sales.

Aubrey proposes a \$236,946 or a 143.19 percent revenue increase from test year revenue of \$165,472 to \$402,418. The proposed revenue increase would produce an operating income of \$107,365. The Company's proposed original cost rate base ("OCRB") is \$1,263,116. The Company's proposed rates would increase the typical residential bill with a median usage of 2,470 gallons from \$19.16 to \$46.09, for an increase of \$26.93, or 140.54 percent.

Staff reviewed the Company's initial application and had very few disputed issues. In the interest of judicial economy, the parties entered into settlement negotiations.

The Settlement Agreement ("Agreement") recommended by Staff and Aubrey would result in a revenue increase of \$225,627 or 136.35 percent from test year revenue of \$165,472 to \$391,099. The Agreement recommended revenue increase would produce an operating income of \$107,365, with an OCRB of \$1,263,116. The recommended rates in the Agreement would increase the typical residential 5/8 x 3/4-inch meter bill with a median usage of 2,470 gallons from \$16.82 to \$38.87, for an increase of \$22.05, or 131.09 percent. The Agreement proposes a 3-year phase-in, due to the impact the rate increase would have on Aubrey customers. The Agreement suggests the phase-in because of the Commission's support for gradual rate increases and recommends rates accordingly.

Staff recommends:

1. Approval of the rates and charges shown in Settlement Schedule H-3. (*See Agreement*)
2. In addition to collection of its regular rates and charges, the Company may collect from its customers a proportionate share of any privilege, sales or use tax, per Arizona Administrative Code ("A.A.C.") Rule 14-2-409(D)(5).
3. That the Company be ordered to file with Docket Control, as a compliance item in this Docket, a tariff schedule of its new rates and charges within 30 days after the effective date of the Decision in this proceeding.
4. Approval of the depreciation rates listed in Table B of the Engineering report on a going-forward basis.

5. Approval of the service line and meter installation charges listed in Table C of the Engineering report.
6. That the Company be required to file with Docket Control, as a compliance item in this docket within 90 days of the effective date of the Decision in this case, at least three Best Management Practices ("BMPs") in the form of tariffs that conform to the templates created by Staff. The templates created by Staff are available on the Commission's website at <http://www.azcc.gov/Divisions/Utilities/forms.asp>. The Company may request cost recovery of actual expenses associated with the BMPs implemented in its next general rate application.
7. That Aubrey retain an outside contractor to conduct a distribution system leak survey and prepare a written report documenting the leak survey results, including field sketches and digitized maps of identified leak locations. Based on the results of the leak survey and prioritization plan, Aubrey will implement a systematic main replacement program
8. That the Company file its water loss reduction plan, based on the results of the leak survey and prioritization plan, with Docket Control, as a compliance item in this docket, within 12 months of the effective date of the decision in this case.
9. That beginning within 24 months of the effective date of the decision in this case, the Company file with Docket Control, as a compliance item in this docket, an annual water loss monitoring report for its entire system for 12 consecutive months. The Company must continue filing annual water loss monitoring reports until water loss is less than 10 percent, or until further order of the Commission, whichever comes first.

## TABLE OF CONTENTS

	PAGE
FACT SHEET .....	1
<i>Company Statistics:</i> .....	1
<i>Metered Rates:</i> .....	1
<i>Customers:</i> .....	3
<i>Customer notification:</i> .....	3
<i>Complaints and Disconnects:</i> .....	3
SUMMARY OF FILING.....	4
CONSUMER SERVICES .....	4
COMPLIANCE .....	5
ENGINEERING ANALYSIS .....	5
RATE BASE-SETTLEMENT AGREEMENT .....	5
OPERATING INCOME STATEMENT-SETTLEMENT AGREEMENT .....	5
<i>Operating Revenue</i> .....	6
<i>Operating Expenses</i> .....	6
<i>Purchased Power</i> .....	6
<i>Water Testing</i> .....	6
<i>Rate Case Expense</i> .....	6
<i>Income Tax Expense</i> .....	6
REVENUE REQUIREMENT .....	6
RATE DESIGN .....	6
STAFF RECOMMENDATIONS .....	7

## ATTACHMENT

Engineering Report.....	A
-------------------------	---

## FACT SHEET

### *Company Statistics:*

**Current rates:** Decision No. 69379 dated March 22, 2007.

**Type of ownership:** "C" Corporation.

**Location:** The Company is located in the town of Seligman, Arizona in Yavapai County, along I-40 halfway between Kingman and Flagstaff. The Company is not located in any Active Management Area ("AMA").

### **Rates:**

Permanent rate increase application filed: August 6, 2015.

Current test year ended: December 31, 2014.

Application found Sufficient: September 4, 2015.

Prior test year ended: December 31, 2005.

### *Metered Rates:*

#### **1<sup>st</sup> Year**

	<u>Current Rates</u>	<u>Settlement Proposed</u>
Monthly Minimum Charge (Based on a 5/8" x 3/4" meter)	\$12.50	\$20.25
Gallons in Minimum	0	0
<b>Commodity Charge (per 1,000 gallons)</b>		
From 1 to 3,000 Gallons	\$1.75	\$2.10
From 3,001 to 10,000 Gallons	\$2.25	\$2.70
Over 10,000 Gallons	\$2.70	\$3.15
Typical residential bill based On median usage of 2,470 gallons	\$16.82	\$25.44



**2<sup>nd</sup> Year**

	<u>Current Rates</u>	<u>Settlement Proposed</u>
Monthly Minimum Charge (Based on a 5/8" x 3/4" meter)	\$12.50	\$24.55
Gallons in Minimum	0	0
<b>Commodity Charge (per 1,000 gallons)</b>		
From 1 to 3,000 Gallons	\$1.75	\$3.07
From 3,001 to 10,000 Gallons	\$2.25	\$3.94
Over 10,000 Gallons	\$2.70	\$4.60
Typical residential bill based On median usage of 2,470 gallons	\$16.82	\$32.13

**3<sup>rd</sup> Year**

	<u>Current Rates</u>	<u>Settlement Proposed</u>
Monthly Minimum Charge (Based on a 5/8" x 3/4" meter)	\$12.50	\$28.50
Gallons in Minimum	0	0
<b>Commodity Charge (per 1,000 gallons)</b>		
From 1 to 3,000 Gallons	\$1.75	\$4.20
From 3,001 to 10,000 Gallons	\$2.25	\$5.40
Over 10,000 Gallons	\$2.70	\$6.30
Typical residential bill based On median usage of 2,470 gallons	\$16.82	\$38.87

*Customers:*

The average number of metered customers for Aubrey for test year ended December 31, 2014: 279

*Customer notification:*

On August 14, 2015, the Company filed an Affidavit of Mailing with the Commission confirming that its customers were notified of the Company's application for a rate increase.

*Complaints and Disconnects:*

Number of customer complaints and disconnections from January 1, 2012 through September 11, 2015:

2015 – One Complaint - disconnection

Three Opinions opposed to this application

2014 – Zero Complaints

2013 – Two Complaints – One disconnect, One Quality of Service

2012 – Three Complaints – One disconnect, two other related to the Company's request for backflow prevention devices

All complaints have been resolved and closed.

## SUMMARY OF FILING

On August 6, 2015, BN Leasing Corporation dba Aubrey Water Company ("Aubrey" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for a permanent rate increase. On September 4, 2015, the Commission Utilities Division Staff ("Staff") determined that the Company's application met sufficiency requirements of the Arizona Administrative Code, Section R14-2-103.

During the test year ended December 31, 2014, Aubrey provided water service to 223 residential customers and 56 commercial customers in the Seligman, Arizona community. In addition to customers connected to Aubrey's distribution system, the Company also supplies water to homes outside of Seligman through bulk water sales (a commercial water hauling station and a coin operated standpipe sales station).

Aubrey's proposed rates would produce total operating revenue of \$402,418 and operating income of \$107,365. The Company's proposed original cost rate base ("OCRB") is \$1,263,116. The Company's proposed rates would increase the typical residential bill, with a median usage of 2,470 gallons, from \$19.16 to \$46.09, for an increase of \$26.93, or 140.54 percent.

Staff reviewed the Company's initial application and had very few disputed issues. In the interest of judicial economy, the parties entered into settlement negotiations.

The Settlement Agreement ("Agreement") between Staff and Aubrey recommends a revenue increase of \$225,627 or 136.35 percent from test year revenue of \$165,472 to \$391,099. The Agreement recommended revenue increase would produce an operating income of \$107,365, with an OCRB of \$1,263,116. The recommended rates in the Agreement would increase the typical residential 5/8 x 3/4-inch meter bill with a median usage of 2,470 gallons from \$16.82 to \$38.87, for an increase of \$22.05, or 131.09 percent. The Settlement Agreement proposes a 3-year phase-in, due to the impact the rate increase would have on Aubrey customers. The Agreement suggests the phase-in because of the Commission's support for gradual rate increases and recommends rates accordingly.

## CONSUMER SERVICES

A search of Consumer Services' database from January 1, 2012 through September 11, 2015 reveals:

2015 – One Complaint – disconnection

Three Opinions opposed to this application

2014 – Zero Complaints

2013 – Two Complaints – One disconnect, One Quality of Service

2012 – Three Complaints – One disconnect, two other related to the Company's request for backflow prevention devices

All complaints have been resolved and closed.

A review of the Company's billing format indicates that it is in compliance with Rule R14-2-409<sup>1</sup> of the Arizona Administrative Code.

On August 14, 2015, the Company filed an Affidavit of Mailing with the Commission confirming that its customers were notified of the Company's application for a rate increase.

## **COMPLIANCE**

The Utilities Division Compliance Section Database indicates that there are currently no delinquencies for Aubrey.

Aubrey is current on its property tax obligations.

Aubrey is in good standing with the Corporations Division of the Commission.

## **ENGINEERING ANALYSIS**

Staff inspected the Company's plant facilities on September 15, 2015. Aubrey's source of water is two wells located approximately six miles southwest of Seligman. From the wells, water is pumped to the storage tank in Seligman through a 6.5 mile long transmission line. From the storage tank, booster pumps deliver water to the Aubrey's distribution system. A complete discussion of Staff's technical findings and recommendations and a description of the water system are provided in the attached Staff Engineering Report.

Staff recommends using the depreciation rates shown on Table B of the Staff Engineering Report.

A major concern of Staff Engineers is non-account water loss of 18 percent which is above the recommended level of 10 percent and maximum of 15 percent. More information on this is available in the Staff Engineering Report.

Aubrey has an approved Backflow Prevention tariff on file with the ACC.

Aubrey has an approved Curtailment plan tariff on file with the ACC.

## **RATE BASE-SETTLEMENT AGREEMENT**

Staff concurs with the Company's proposed OCRB of \$1,263,116 and also recommends that this be recognized as the Fair Value Rate Base.

---

<sup>1</sup> Per Arizona Administrative Code, Title 14, Chapter 2, R14-2-409.B.2 thru R14-2-409.B.2.j each bill for residential service will contain minimum information.

## OPERATING INCOME STATEMENT-SETTLEMENT AGREEMENT

Operating Revenue – Staff and the Company are in agreement with the operating revenue shown on Settlement Schedule A-1. (*See Agreement*)

Operating Expenses – The Agreement shows adjustments to operating expenses and resulted in a net decrease of \$6,593 as shown on Settlement Schedule C-1 (*See Agreement*), page 1. Details of these adjustments are presented below.

Purchased Power – This adjustment decreases this account by \$3,446 from \$30,469 to \$27,023 as shown on Settlement Schedule C-1 (*See Agreement*). The Company states that this portion of electrical service is primarily used by a BNSF Railway facility. The Company agrees this cost should be removed from Purchased Power expenses for the test year and that BNSF Railway will pay this electric bill on a going forward basis.

Water Testing – This adjustment decreases this account by \$805, from \$3,098 to \$2,293, as shown on Settlement Schedule C-1 (*See Agreement*), to reflect Staff Engineer's recommended expense level as shown on Table A of the Engineering Report.

Rate Case Expense – This adjustment decreases this account by \$3,000, from \$15,000 to \$12,000 as shown on Settlement Schedule C-1 (*See Agreement*). Staff and the Company have agreed to a reasonable amount of \$50,000 over 5 years for rate case expense.

Income Tax Expense – This adjustment increases this account by \$658, from \$(14,582) to \$(13,924), as shown on Settlement Schedule C-1 (*See Agreement*), to reflect calculation of Arizona's minimum corporate income tax expense.

## REVENUE REQUIREMENT

The Agreement recommends total operating revenue of \$391,099, a \$225,627 or 136.35 percent increase over the test year revenues of \$165,472, as shown on Settlement Schedule A-1 (*See Agreement*). Staff believes that its recommended cash flow provides ample funds to meet the Company's operating needs. This is the result of an 8.50 percent rate of return on OCRB.

## RATE DESIGN

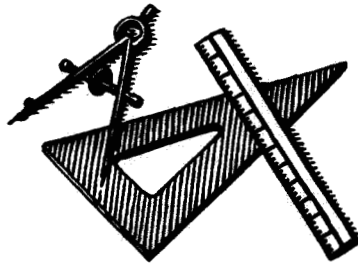
Agreement Schedule H-3 (*See Agreement*) presents a complete list of the Company's present rates and proposed rates. Also included are the rates and charges recommended in the Agreement.

The Agreement proposes a 3 year phase-in of rates for Aubrey. Staff believes the phase-in of rates would minimize the impact of the rate increase on customers. Under the proposed Agreement's rate design, in phase 1, the typical residential monthly bill, with median use of 2,470 gallons, would increase by \$8.62 as shown on Settlement Schedule First Step – Year 1. In phase 2, the typical residential bill with median usage, would increase by \$15.31, as shown on Agreement Schedule Second Step – Year 2. In phase 3 of the Agreement, the typical residential monthly bill

with median usage, would increase by \$22.05, as shown on Settlement Schedule Final Step – Year 3. The increases noted are from the current level.

### STAFF RECOMMENDATIONS

1. Approval of the rates and charges shown in Settlement Schedule H-3. (*See Agreement*)
2. In addition to collection of its regular rate and charges, the Company may collect from its customers a proportionate share of any privilege, sales or use tax, per Arizona Administrative Code (“A.A.C.”) Rule 14-2-409(D)(5).
3. That the Company be ordered to file with Docket Control, as a compliance item in this Docket, a tariff schedule of its new rates and charges within 30 days after the effective date of the Decision in this proceeding.
4. Approval of the depreciation rates listed in Table B of the Engineering report on a going-forward basis.
5. Approval of the service line and meter installation charges listed in Table C of the Engineering report.
6. That the Company be required to file with Docket Control, as a compliance item in this docket within 90 days of the effective date of this Decision, at least three Best Management Practices (“BMPs”) in the form of tariffs that conform to the templates created by Staff. The templates created by Staff are available on the Commission’s website at <http://www.azcc.gov/Divisions/Utilities/forms.asp>. The Company may request cost recovery of actual expenses associated with the BMPs implemented in its next general rate application.
7. Aubrey will retain an outside contractor to conduct a distribution system leak survey and prepare a written report documenting the leak survey results, including field sketches and digitized maps of identified leak locations. Based on the results of the leak survey and prioritization plan, Aubrey will implement a systematic main replacement program
8. That the Company file its water loss reduction plan, based on the results of the leak survey and prioritization plan, with Docket Control, as a compliance item in this docket, within 12 months of the effective date of the decision in this case.
9. That beginning within 24 months of the effective date of the Decision in this case, the Company file with Docket Control, as a compliance item in this docket, an annual water loss monitoring report for its entire system for 12 consecutive months. The Company must continue filing annual water loss monitoring reports until water loss is less than 10 percent, or until further order of the Commission, whichever comes first.



Engineering Report For  
Aubrey Water Company  
Docket No. W-03476A-15-0286 (Rates)  
October 5, 2015

## SUMMARY

### Conclusions

1. The Arizona Department of Environmental Quality ("ADEQ") reported that the Burlington Northern and Santa Fe Railway Company dba Aubrey Water Company ("Aubrey" or "Company") water system is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.
2. The Company's water system has adequate well production and storage capacities to serve the present customer base and a reasonable level of growth.
3. The Company's water system is not located in an Arizona Department of Water Resources ("ADWR") designated Active Management Area. ADWR has determined that the Aubrey water system is compliant with departmental requirements governing water providers and/or community water systems.
4. The Company is in compliance with the Arizona Corporation Commission ("ACC" or "Commission") Utilities Division Compliance Database at this time.
5. The Company has an approved curtailment plan tariff.
6. The Company has an approved backflow prevention tariff.

### Recommendations

1. Commission Utilities Division Staff ("Staff") recommends its annual water testing expense estimate of \$2,293 be used for this proceeding.
2. Staff recommends the depreciation rates listed in Table B on a going-forward basis.
3. Staff recommends acceptance of the Company's proposed service line and meter installation charges as shown in Table C.
4. Staff recommends that the Company be required to file with Docket Control, as a compliance item in this docket within 90 days of the effective date of this Decision, at least three BMPs in the form of tariffs that conform to the templates created by Staff. The templates created by Staff are available on the Commission's website at

<http://www.azcc.gov/Divisions/Utilities/forms.asp>. The Company may request cost recovery of actual expenses associated with the BMPs implemented in its next general rate application.

5. Staff recommends that the Company file its water loss reduction plan, based on the results of the leak survey and prioritization plan, with Docket Control, as a compliance item in this docket, within 12 months of the effective date of the decision in this case.
6. Staff recommends that beginning within 24 months of the effective date of the decision in this case, the Company file with Docket Control, as a compliance item in this docket, an annual water loss monitoring report for its entire system for 12 consecutive months. The Company must continue filing annual water loss monitoring reports until water loss is less than 10 percent, or until further order of the Commission, whichever comes first.



## TABLE OF CONTENTS

	Page
I. INTRODUCTION AND LOCATION OF COMPANY .....	1
II. WATER SYSTEM.....	4
<i>A. Description of the Water System .....</i>	<i>4</i>
<i>B. Water Use.....</i>	<i>5</i>
<i>C. System Analysis.....</i>	<i>6</i>
<i>D. Growth.....</i>	<i>6</i>
III. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”) COMPLIANCE.....	6
<i>Compliance.....</i>	<i>6</i>
<i>Water Testing Expense.....</i>	<i>7</i>
IV. ARIZONA DEPARTMENT OF WATER RESOURCES (“ADWR”) COMPLIANCE .....	7
V. ACC COMPLIANCE.....	8
VI. DEPRECIATION RATES .....	8
VII. OTHER ISSUES.....	10
1. <i>Service Line and Meter Installation Charges .....</i>	<i>10</i>
2. <i>Curtailment Plan Tariff.....</i>	<i>11</i>
3. <i>Backflow Prevention Tariff.....</i>	<i>11</i>
4. <i>Best Management Practices (“BMPs”).....</i>	<i>11</i>

## **I. INTRODUCTION AND LOCATION OF COMPANY**

On August 6, 2015, the Burlington Northern and Santa Fe Railway Company dba Aubrey Water Company ("Aubrey" or "Company") filed a rate application with the Arizona Corporation Commission ("ACC" or "Commission"). The Commission Utilities Division Staff's ("Staff") engineering review and analysis of the application is presented in this report.

Aubrey provides water service to approximately 280 connections in the community of Seligman, Arizona. In addition to customers connected to the Aubrey's distribution system, the Company also supplies water to homes outside of Seligman through bulk water sales (a commercial water hauling station and a coin operated standpipe sales station).

The Company's plant facilities were visited on September 15, 2015, by Jeff Francis, Staff Engineer, in the accompaniment of Ray L. Jones, the Company's Engineer and John Kennedy, certified operator.

Figure 1 shows the location of the Company within Yavapai County and Figure 2 delineates the Company's certificated area which covers approximately 418 acres or 0.6 square mile.

Figure 1

# YAVAPAI COUNTY

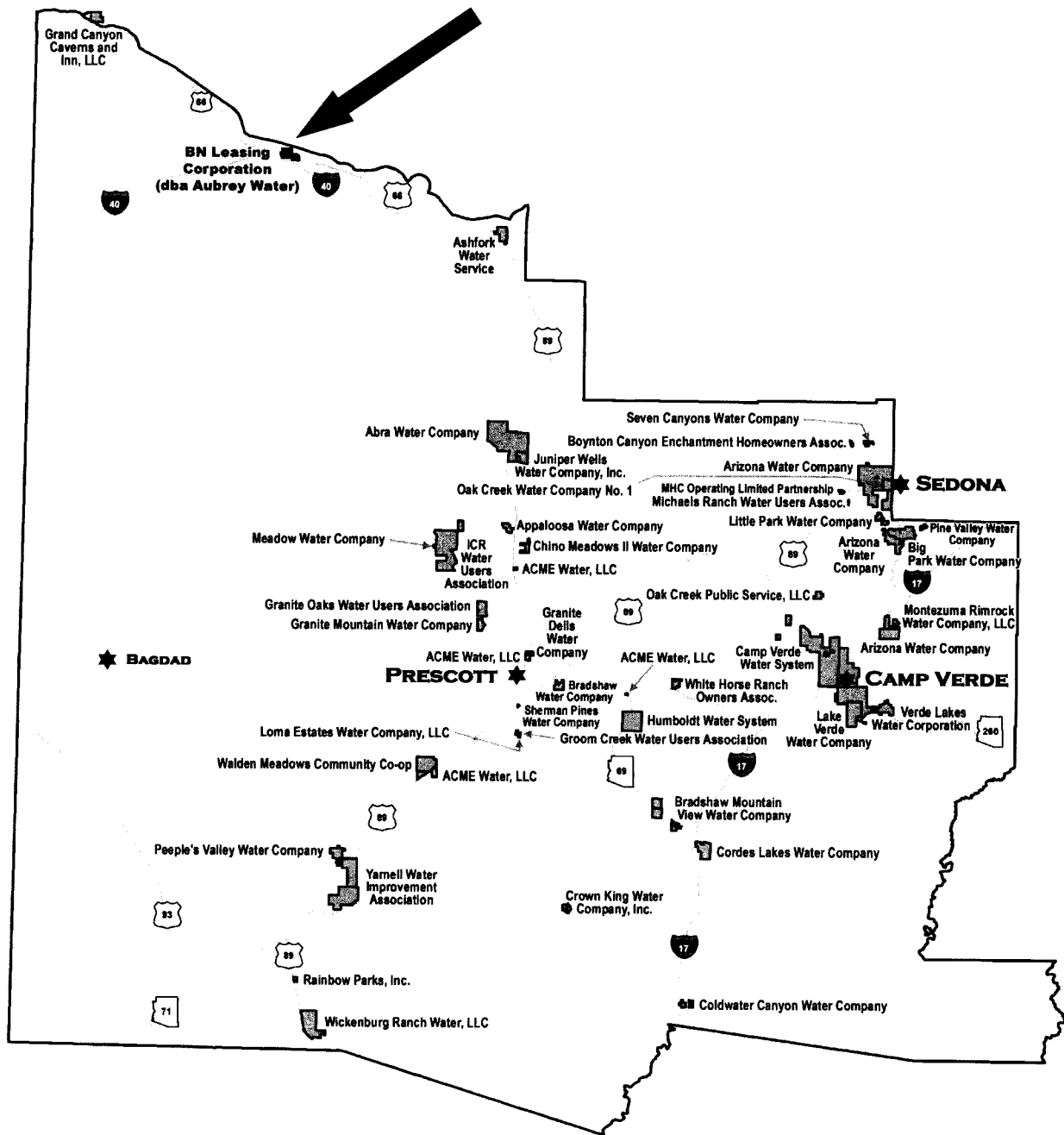


Figure 2

# Y A V A P A I C O U N T Y

**BN LEASING CORPORATION**  
**(dba AUBREY WATER COMPANY)**

<b>23N06W</b>						<b>23N05W</b>					
05	04	03	02	01		06	05	04	03	02	01
08	09	10	11	12		07	08	09	10	11	12
17	16	15	14	13		16	17	18	15	14	13
20	21	22	23	24		19	20	21	22	23	24
29	28	27	26	25		28	29	28	27	26	25
32	33	34	35	36		31	32	33	34	35	36
05	04	03	02	01		06	05	04	03	02	01
08	09	10	11	12		07	08	09	10	11	12
17	16	15	14	13		16	17	18	15	14	13
20	21	22	23	24		19	20	21	22	23	24
29	28	27	26	25		28	29	28	27	26	25
32	33	34	35	36		31	32	33	34	35	36
<b>22N06W</b>						<b>22N05W</b>					

## II. WATER SYSTEM

### A. Description of the Water System

Aubrey's source of water is two wells located approximately six miles southwest of Seligman. From the wells, water is pumped to the storage tank in Seligman through a 6.5 mile long transmission line. From the storage tank, booster pumps deliver water to the Aubrey's distribution system. A water system plant facilities summary<sup>1</sup> is tabulated below:

Well							
Company Well ID	ADWR Well ID	Pump (HP)	Pump Yield (GPM)	Casing Depth (feet)	Casing Diameter (inches)	Meter Size (inches)	Year Drilled
No.1 (North)	55-627225	30	160	488	16 & 12	3	1947
No.2 (South)	55-627226	30	160	509	16 & 12	3	1947

Storage Tank	
Capacity (gallons)	Quantity
281,480	1

Booster Pumps	
Capacity (HP)	Quantity
25	2
2	1

Fire Hydrants	
Quantity Standard	22

Distribution Mains		
Size (inches)	Material	Length (feet)
2	PVC	3,560
4	PVC	9,600
6	PVC	4,800
2	GALV	14,580
6	CIP	15,600
4	PVC	220

Customer Meters	
5/8 x3/4	280
3/4	1
1	9
1 1/2	7
Turbo 3	3

Supply pipeline/Transmission Main			Note
Size (inches)	Material	Length (feet)	
6	HDPE	1,508	Pipeline from wells to transmission main
8	CIP	34,108	Transmission main to storage tank

Treatment Equipment
Chlorinator

Structures
Storage Container
Pump House

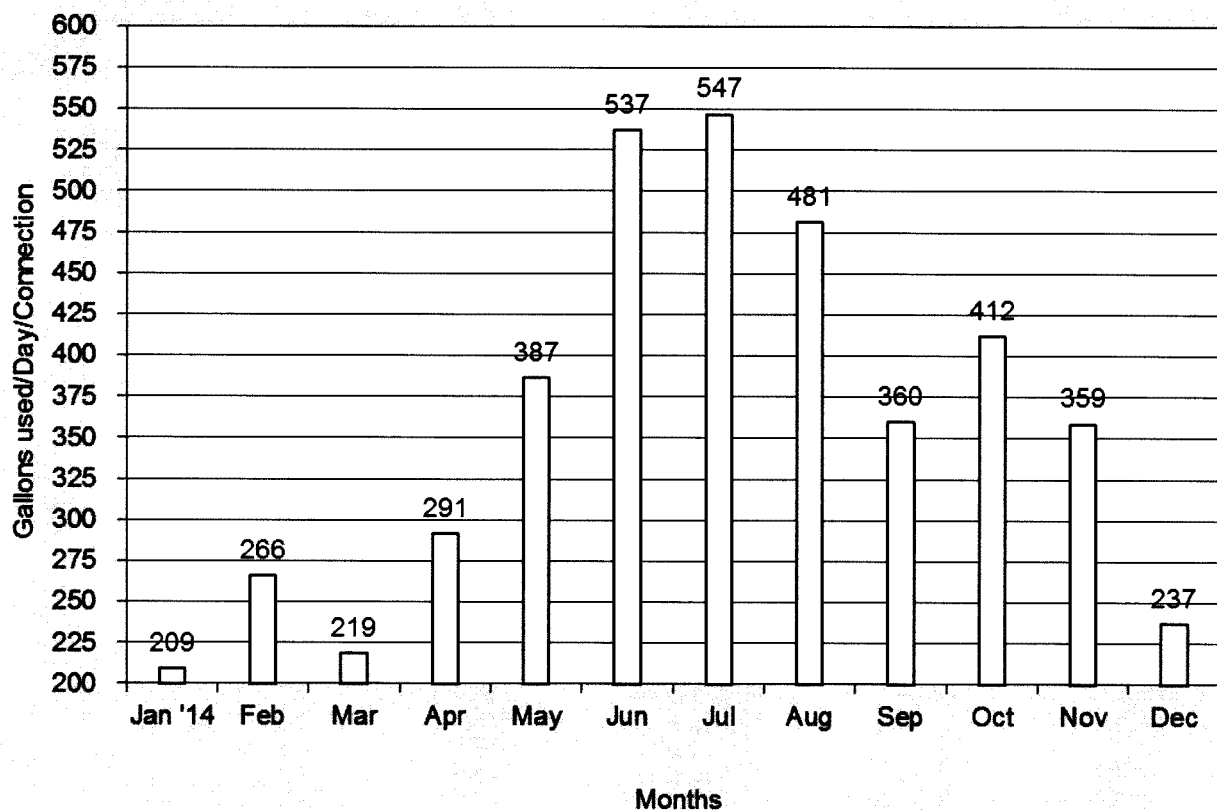
<sup>1</sup> Per Company's application and site visit

B. *Water Use*

Water Sold:

Figure 3 represents Aubrey water consumption data provided by the Company in its water use data sheet for the test year ending December 31, 2014. Customer consumption included a high monthly water use of 547 gallons per day (“GPD”) per connection in July, and the low water use was 209 GPD per connection in January. The system average annual use was 359 GPD per connection.

Figure 3 Water Use



Non-account Water:

Non-account water should be 10 percent or less, and never more than 15 percent. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a company to identify water and revenue losses due to leakage, theft and flushing.

The Company reported 45,245,000 gallons pumped, 36,959,000 gallons sold and 140,910 gallons of estimated beneficial non-revenue uses<sup>2</sup> for the test year, resulting in a water loss of 18 percent. This percentage is above the recommended threshold amount of 10 percent.

In order to address the system's water loss, Aubrey plans to retain an outside contractor to conduct a distribution system leak survey and prepare a written report documenting the leak survey results, including field sketches and digitized maps of identified leak locations. Based on the results of the leak survey and prioritization plan, the Company will implement a systematic main replacement program.

Staff recommends that the Company file its water loss reduction plan, based on the results of the leak survey and prioritization plan, with Docket Control, as a compliance item in this docket, within 12 months of the effective date of the decision in this case.

Staff recommends that beginning within 24 months of the effective date of the decision in this case, the Company file with Docket Control, as a compliance item in this docket, an annual water loss monitoring report for its entire system for 12 consecutive months. The Company must continue filing annual water loss monitoring reports until water loss is less than 10 percent, or until further order of the Commission, whichever comes first.

*C. System Analysis*

Based on the water use data provided by the Company for the Test Year, Staff concludes that the Aubrey system's well total production capacity of 320 GPM and storage capacity of 281,480 gallons is adequate to serve the present customer base and reasonable growth.

*D. Growth*

Based on customer data obtained from the Company's Annual Reports, the Aubrey has not experienced measurable growth and it appears that the system may be losing customers. A listing of the number of connections at the end of each year from 2010 to 2014 is tabulated below:

2010	2011	2012	2013	2014
283	284	281	286	279

**III. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY ("ADEQ") COMPLIANCE**

*Compliance*

Per ADEQ Compliance Status Report dated September 18, 2015, the Aubrey water system is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.

---

<sup>2</sup> The Company's beneficial non-revenue water use includes system flushing of water lines and fire protection.

*Water Testing Expense*

Participation in the ADEQ Monitoring Assistance Program ("MAP") is mandatory for water systems which serve less than 10,000 persons (approximately 3,300 service connections).

The Company reported its water testing expense at \$3,098 for the test year. Staff has reviewed the Company's water testing expense and recalculated the testing costs based on tests required by ADEQ. Staff's estimated average annual water testing expenses for the Company is \$2,293.

Table A lists Staff's annual water testing expense estimate totaling \$2,293 (which includes MAP expenses totaling \$1,198, rounded).

Table A. Water Testing Cost

Monitoring	Cost per sample	Number of samples	Annual Expense
Total coliform – monthly	\$20	12	\$240
Lead & Copper – per 3 years	\$40	10/3-yrs	\$133
Nitrate-once a year	\$20	1	\$20
Nitrite-once per 9 years	\$20	1/9-yrs	\$2
TTHM-once a year	\$100	2	\$200
HAA5-once a year	\$250	2	\$500
MAP – IOCs, Radiochemical, Asbestos, SOCs, & VOCs	MAP	MAP	\$1,198
Total			<b>\$2,293</b>

Staff recommends an annual water testing expense of \$2,293 be used for purpose of this proceeding.

**IV. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE**

The Company's water system is not located in an ADWR designated Active Management Area. According to ADWR compliance status reports, dated August 28, 2015, ADWR has determined that Aubrey water system is compliant with departmental requirements governing water providers and/or community water systems.



## **V. ACC COMPLIANCE**

On September 1, 2015, the Utilities Division Compliance Section noted that a check of the compliance database indicates that there are no delinquencies for Aubrey. Therefore, the Company is in compliance with the ACC Compliance Database at this time.

## **VI. DEPRECIATION RATES**

Staff has developed typical and customary depreciation rates within a range of anticipated equipment life per National Association of Regulatory Utility Commissioners ("NARUC") plant category. In Decision No. 69379 these depreciation rates for Aubrey were adopted. The Company used these depreciation rates in this rate proceeding. In its application the Company proposed to change depreciation rate from 12.5 percent to 8 percent for the pumping equipment (NARUC plant account No.311) on a going-forward basis. According to the Company, increasing the average anticipated life of the pumping equipment from 8 years to 12.5 years will prevent full depreciation of an asset ahead of the actual retirement of the plant.

Staff recommends acceptance of the Company's proposed depreciation rate modification for Aubrey pumping equipment on a going-forward basis. The depreciation rates are presented in Table B and it is recommended that these depreciation rates be used on a going-forward basis.

**TABLE B  
DEPRECIATION RATE TABLE FOR WATER COMPANIES**

NARUC Account No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment (see Note No.3)	12.5	8.00
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	----	----

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.
3. Acct. 311: the average anticipated life of the pumping equipment was revised from 8 years to 12.5 years for Aubrey Water Company on a going- forward basis.

## VII. OTHER ISSUES

### 1. *Service Line and Meter Installation Charges*

Service line and meter installation charges are refundable advances. In its filing the Company requested changes to its current service line and meter installation charges. Since the Company may at times install meters on existing service lines, it would be appropriate for some customers to only be charged for the meter installation. Therefore, separate service line and meter charges have been developed by Staff. For services and meters 8 inches and larger, the Company is proposing to charge these installation charges "at cost". The Company's proposed installation charges are reasonable and within the range of rates normally recommended by Staff.

Staff recommends acceptance of the Company's proposed installation charges as shown in Table C.

**TABLE C**  
**SERVICE LINE AND METER INSTALLATION CHARGES**

Meter Size	Company Current Tariff	Company's Proposed Installation Charges		
		Service Line Charge	Meter Charge	Total Charge
5/8 x 3/4-inch	\$440	\$500	\$155	\$655
3/4-inch	\$520	\$500	\$255	\$755
1-inch	\$610	\$550	\$315	\$865
1-1/2-inch	\$855	\$610	\$525	\$1,135
2-inch -Turbine	\$1,515	\$925	\$1,045	\$1,970
2-inch-Compound	n/t	\$925	\$1,890	\$2,815
3-inch-Turbine	\$2,195	\$1,175	\$1,670	\$2,845
3-inch-Compound	n/t	\$1,310	\$2,545	\$3,855
4-inch -Turbine	\$3,360	\$1,660	\$2,670	\$4,330
4-inch-Compound	n/t	\$1,865	\$3,645	\$5,510
6-inch -Turbine	\$6,115	\$2,475	\$5,025	\$7,500
6-inch-Compound	n/t	\$2,615	\$6,920	\$9,535
8-inch or larger	n/t	Cost	Cost	Cost
Note: Road cuts at cost				

2. *Curtailment Plan Tariff*

The Company has an approved curtailment plan tariff.

3. *Backflow Prevention Tariff*

The Company has an approved backflow prevention tariff.

4. *Best Management Practices ("BMPs")*

The Company does not have any approved BMP tariffs. Staff recommends that the Company be required to file with Docket Control, as a compliance item in this docket within 90 days of the effective date of this Decision, at least three BMPs in the form of tariffs that conform to the templates created by Staff. The templates created by Staff are available on the Commission's website at <http://www.azcc.gov/Divisions/Utilities/forms.asp>. The Company may request cost recovery of actual expenses associated with the BMPs implemented in its next general rate application.